**Massachusetts Audubon Society** NALCC Funds Requested: **$99,472**

**Science Delivery Project 2014-1: Planning for climate resilience. Connecting NALCC tools to local conservation organizations**.

Mass Audubon has long protected important landscapes and mentored local conservation efforts. Now, climate change compels us to evaluate best tools for planning responses, and share knowledge with c partners across the state and region. The NALCC has made new resources available, but given technical and capacity limitations in communities and land trusts, they are unlikely to be used well or at all without interpretation, local context, integration with existing tools and mentoring. With expert input, we will interpret and integrate these tools into a technical and practical guidance program for local application. The project will be informed by our own experience in conservation planning at multiple scales, curriculum development, tool interpretation, training, and mentoring. The scaled, modular curriculum will be tested in two community workshops showcasing the use of NALCC tools to identify vulnerabilities and foster ecological resiliency in coastal, inland, wetland and forested systems. Lessons learned will be incorporated in a series of ‘Train the Trainer’ webinars and in- person trainings f for umbrella organizations that can then train their own constituents. During the next two years we will provide support directly to communities and via trained technical staff of regional and state wide conservation/planning organizations and agencies to achieve the broadest effect, including presenting this material at state wide gatherings of conservation and planning professionals such as annual conferences of the Mass Land Trust Coalition Massachusetts Association of Conservation Commissions, State Agency/Land Trust retreat, Regional Conservation Partnerships, Mass Association of Planning Directors, and Citizen Planner Trainer Collaborative.

**Green Infrastructure Center Inc. (GIC)** NALCC Funds Requested: **$67,503.75**

**Science Delivery Project 2014-2: Landscape Assessment and Training Program For Natural and Cultural Resource Professionals**

The Green Infrastructure Center (GIC) proposes to assist the National Capital Region of the National Park Service (NPS) with conservation landscape planning through hands on training in the use of existing data portal tools on the NALCC website and Planning Atlas and new tools developed to facilitate data interpretation, analysis and application. Staff from GIC met with NPS's Center for Urban Ecology staff who asked GIC to assist them with training in coordinated conservation planning within and between their park sites. New data tools using the NALCC data will aid decision making for choosing conservation priorities, identifying resources at risk, making plans for restoration or expansion of key natural and cultural features and making linkages to critical sites beyond and between park boundaries to ensure a resilient network.

The GIC will achieve the following objectives from May 2014 to July 2015 to facilitate conservation planning in the NPS National Capital Region and beyond:

1) Develop new data tools for conservation landscape corridor and hub planning using existing NALCC GIS data as well as additional data that GIC will develop.

2) Develop a training program which includes instruction in how to access and apply existing NALCC data and new GIC-created data tools and application scenarios.

3) Implement the training through hands-on workshops in different parts of the National Capital Region to maximize participation and attendance. The GIC will also develop an online version of the trainings to encourage attendance across the entire NALCC region.

4) Post new data sets and data tools to the NALCC website to make them available to NALCC data portal users.

The Green Infrastructure Center Inc., P.O. Box 317, Charlottesville, Virginia, 22902

**Quality Deer Management Association (QDMA)** NALCC Funds Requested: **$76,500**

**Science Delivery Project 2014-3: Quality Deer Management Association Private Lands Initiative**

The vast majority of forests and wildlife habitat in the northeastern United States is in private ownership. Private landowners have the opportunity to directly impact forest programs and conservation of all wildlife species, and this is especially important for fish and wildlife species of special interest and those in peril. Therefore, to positively impact resource stewardship we need to impact private lands and should be focused in areas where mutual collaboration across boundaries can be expected/beneficial, and both can be accomplished through the Quality Deer Management Association’s (QDMA) Private Land Initiative. This initiative provides the knowledge and structure necessary for managing private lands to landowners; as well as public and private land managers through training courses and certification programs for individuals and properties. This program has tremendous overlap with elements of the North Atlantic Landscape Conservation Cooperative’s (NALCC) priority science needs, particularly with respect to the creation of habitat that supports species of concern, which is directly impacted by the management of white-tailed deer, a keystone species found throughout the North Atlantic region. The expected outcome (after a two year implementation period) from this initiative will be better coordination and communication between landowners in two targeted regions of the Northeast with improved management of deer and habitat where species of special concern are found.

**Connecticut River Watershed Council** NALCC Funds Requested: **$50,000**

**Demonstration Project 2014-4: A CONNECTICUT RIVER FISH BIOLOGICAL CONDITION GRADIENT: A collaborative watershed-based decision support tool for restoring and maintaining aquatic habitat and water quality**

Using NA LCC and related datasets, CRWC and MBI will convene both a technical and public process to craft a biological condition gradient (BCG) for the mainstem Connecticut River – a unique decision support tool – that assesses both resident and diadromous fish species’ expected and known occurrences. A BCG establishes technically valid assemblages keyed into six tiers which represent a gradient of environmental conditions from pristine to severely degraded. These categories are populated with fish assemblages that consider ten categories of ecological attributes and six different levels of stressors using current and historical fish population information.

This BCG will be developed through a technical process will include participants from EPA, USFWS, and the four states’ fisheries and water quality programs to ensure all relevant expertise is included. Because a BCG identifies aquatic assemblages and habitat that are representative of the ultimate goals of the Clean Water Act and other restoration programs which require public support, CRWC will convene a public process to explain the utility of the tool and garner further refinements from interested stakeholders.

This project would be unique as it is the only watershed-wide, multiple-state initiative to create a decision support tool that is consistent across state fisheries and water quality programs. Such a tool has immediate utility to the pending relicensing of 5 hydropower projects on the mainstem Connecticut, which affects over 200 miles of river as well as diadromous fisheries restoration goals throughout the entire watershed.

**The Pennsylvania State University** NALCC Funds Requested: **$100,000.00**

**Science Delivery Project 2014-5: Supporting Riverscape Conservation Science through Predictions of Thermal Habitat and Brook Trout Distributions in a Changing Climate and Landscape**

We propose to train science partners throughout the Eastern Brook Trout Joint Venture (EBTJV) region, which includes the entire NALCC and portions of two other LCCs, on the use of tools developed to identify potential climate and land use change effects on stream water temperature and Brook Trout occurrence. We have previously developed models to predict potential climate and land use change effects on water temperature and Brook Trout occurrence throughout individual stream reaches of the EBTJV region. Our over-riding goal is to make this information available to users within an interactive decision support tool. Our primary objectives are to 1) convert model outputs into a decision support framework based on user input, 2) integrate models into existing desktop GIS based visualization tools, and 3) train potential users to use the tools to support landscape conservation science. We will achieve objective # 1 by using webinars to educate potential users on models and to receive input on the formats most useful for landscape conservation science. We will achieve objective #2 through a collaborative effort among researchers at PSU, WVU, and Downstream Strategies that will make tools available to users in multiple formats. We will achieve objective # 3 by offering webinars and workshops focused on the utility of tools for specific conservation objectives. We propose to begin this project in October 2014 and complete all three objectives by December 2014, March 2015, and September 2015, respectively.

**Open Space Institute (OSI)** NALCC Funds Requested: **$100,000**

**Science Delivery Project 2014-6: Catalyzing Land Trust Capacity for Data and Science Integration**

To promote the understanding and application of select NA LCC sponsored science for land conservation across the North Atlantic, including the Canadian Maritimes, the Open Space Institute will develop a set of guidance documents informed and distributed through strategic partnerships with the Land Trust Alliance, Highstead, and other select organizations that serve as resource ‘hubs’ for the land conservation community. Our project will last 22 months and focus datasets most relevant to informing climate resilience for land conservation: the terrestrial resilience science, geospatial condition analysis (U.S. only), permeability, and secured lands datasets. The guidance documents will follow a logical sequence, covering the background of the science, why it is relevant to land conservation, and guidance for conservation planning. Case studies documenting the application of these data will be developed.

We aim to ensure broad knowledge and accurate use of the new and important science coming out of the NA LCC and, ultimately, to increase the resilience of the protected land base in the Northern Atlantic region. This project builds on OSI’s extensive leadership in translating complex science for land conservation and will leverage skills, partnerships and knowledge established through OSI’s existing Resilient Landscape Initiative. To ensure the usefulness and relevance of the guidance documents, our partners will assist with collecting input from end users and then field testing the guides through their ongoing training programs for land trusts. They will then serve as the primary distribution agents, establishing a broad, umbrella network for linking land trusts to NALCC.

**Nature Conservancy of Canada** NALCC Funds Requested: **$60,225**

**Demonstration Project 2014-7: A Habitat Conservation Strategy for the province of Prince Edward Island: A collaborative approach for terrestrial conservation**

We are respectfully requesting that the NALCC contribute $60,225 for the development of a Habitat Conservation Strategy (HCS) for the province of Prince Edward Island. This HCS will be the first for the province of PEI. It will represent a concentrated effort by involved partners to combine available conservation science and create a conservation “blueprint” that will identify the areas of Prince Edward Island with the highest conservation value. The HCS will also identify threats to the ecological value of habitats in PEI, and identify conservation knowledge gaps that must be addressed. The HCS will be the end result of unprecedented effort that will require the co-operation and support of multiple stakeholders including representatives from the federal Canadian Wildlife Service, the provincial department of Fish and Wildlife in PEI, the Island Nature Trust, the Mi'kmaq Confederacy of Prince Edward Island, the Eastern Habitat Joint Venture, and University of PEI.

As a result of this project, we will generate outreach materials for conservation practitioners and land use planners within PEI, the Maritimes, and more broadly across the NA LCC region. It is intended that this plan will constitute a resource for all partners interested in evaluating and acting on identified areas of conservation value in Prince Edward Island. Given the projected impact of climate change and erosion, it also has the potential to benefit other industrial sectors (i.e. agriculture, coastal tourism), which may be looking to plan their businesses more sustainably and responsibly. The outcome of this project will be a transparent, scientifically defensible, and easily accessed conservation plan. We anticipate that the HCS will help more efficiently direct limited conservation funds, strengthen local island partnerships, and create a more collaborative avenue toward helping organizations face pressing conservation issues on Prince Edward Island. Ultimately the methods used to develop this HCS will lay the groundwork for improved conservation planning approaches on PEI and elsewhere while demonstrating how other NALCC science projects, such as TNC’s Northeast Terrestrial Habitat map, can be effectively incorporated to improve local conservation planning.

**Highstead Foundation** NALCC Funds Requested: **$40,000**

**Science delivery Project 2014-8: Science to Practice: A Science Delivery Program for Regional Conservation Partnerships in New England**

The purpose of this Project is to deliver, disseminate, and communicate LCC science products to help advance the knowledge base, strategic conservation planning, and on-the-ground conservation success of regional conservation partnerships (RCPs).

There are 39 RCPs in New England (and eastern New York) covering more than 60% of the landscape, working across town and even state boundaries to achieve conservation that is both locally grounded and regionally significant. Each RCP is composed of multiple land trusts, community leaders, agencies, and conservation groups. Highstead, in partnership with the GIS office of Harvard Forest, Harvard University, will provide the technical assistance necessary for these practitioners to understand the foundational LCC data sets and how to apply them to strategic conservation planning through: (1) RCP survey to determine science literacy, capacity, and application needs; (2) webinar on science-based conservation planning; (3) a three-workshop track on LCC data and application at Highstead’s annual RCP Network conference; and (4) three all-day workshops on LCC science and application across the region to optimize RCP attendance and help identify regional differences. The project will expand on a pilot program Highstead completed, funded through the Open Space Institute’s Resilient Landscapes Initiative, that helped the North Quabbin RCP craft a conservation plan utilizing the TNC resilience science. We will work with many partners to optimize widespread understanding of LCC science and application so that the RCP community can plays an increasingly meaningful role in conserving the ecological integrity and resilience of our regional landscape going forward.

**Chesapeake Conservancy** NALCC Funds Requested: **$100,000**

**Demonstration Project 2014-9: Envision the Susquehanna: Incorporating landscape science into large landscape conservation**

The Chesapeake Conservancy is requesting a $100,000 grant under the 2014 NALCC Priority Science Program to carry out a demonstration project as part of the community based, large landscape conservation effort, Envision the Susquehanna. With this funding, the Conservancy and its partners will complete a sophisticated engagement campaign to identify community needs and priorities related to conservation to create a common platform for decision making and conservation science throughout the Susquehanna watershed.

The Conservancy and its partners will use the landscape science products created through the NALCC, including the Terrestrial Habitat Map and Geospatial Condition Analysis, to identify and prioritize locations and methods that would best address the regional and local conservation needs identified by these communities. Using this information, the Conservancy will work with its local partners to develop efficient and effective on-the-ground conservation projects that will protect the Susquehanna’s irreplaceable ecological and cultural resources. As part of this initiative, the Conservancy will share and promote the NALCC landscape science products with its network of over 25 participating organizations and institutions.

Envision the Susquehanna is a collaborative effort of federal, state, local, academic, and non-profit organizations working throughout the Susquehanna watershed in Maryland, Pennsylvania, and New York. Led by the Chesapeake Conservancy, Envision the Susquehanna is working to improve the ecological and cultural integrity throughout the Susquehanna landscape and in so doing improve the quality of life for all citizens along the river.

**National Wildlife Federation** NALCC Funds Requested: **$100,000**

**Science Delivery Project 2014-10: Sharing Conservation Science in the North Atlantic Landscape Conservation Cooperative (NALCC) Region**

National Wildlife Federation (NWF) will facilitate a series of vibrant conversations about wildlife and habitat conservation in a warming climate, the need to coordinate large scale, climate-smart planning efforts among agencies and NGOs, and the science and tools available to meet these challenges. Through a series of in-person and web-based meetings, planned in close coordination with NALCC staff, NWF will engage all 12 NALCC state wildlife agencies and targeted conservation NGOs and federal agencies. Since each state is unique, NWF will work with NALCC to create a tailored outreach plan for each state before reaching out to partners.

One of the key objectives of this outreach will be to share information about NALCC’s science products and tools and resulting “on the ground” successes, thereby increasing interest in utilizing those products and tools. A second objective will be to identify how NALCC science is currently being utilized and strategies for improving that utilization. Special attention will be given to frame this outreach within the context of National Fish Wildlife and Plants Climate Adaptation Strategy, State Wildlife Action Plan revisions, and other large scale, climate-smart planning frameworks.

Expected outcomes include:

State natural resource agencies, conservation NGOs, and federal agencies are better informed about NALCC’s mission, science deliverables and tools and are more likely to utilize them in their daily work. “On the ground” implementation successes of NALCC science products and tools are widely disseminated. Detailed findings are provided to the NALCC about partners’ and potential partners’ perceptions of the utility of the NALCC’s science delivery products and tools. Recommendations are delivered on how and where the NALCC and its partner organizations can use science products and tools for maximum conservation impact. An increased number of organizations become interested partners and advocates for the NALCC.

**New Jersey Department of Environmental Protection**   
NALCC Funds Requested: **$59,800**

**Demonstration Project 2014-11: Utilizing GIS to Prioritize and Inform Conservation Actions on Managed Lands**

The State of New Jersey has protected approximately 1.3 million acres or 26 % of the state as preserved open space. The New Jersey Division of Fish and Wildlife (NJDFW) is responsible for the management of 343,750 of those preserved acres on 121 Wildlife Management Areas (WMAs). With limited resources available to manage these properties, refuge managers within the Division are in need of a method to prioritize WMAs for conservation planning and management activities (prescribed burning, invasive species control, food plots, forest stand improvement, etc.). The NJDFW’s Endangered and Nongame Species Program (ENSP) in partnership with the Conserve Wildlife Foundation of New Jersey (CWF) propose to use the library of spatial data compiled by the NALCC partners to assess Division-owned WMAs. Utilizing GIS ENSP/CWF will score the WMAs according to available data, resulting in a report for each in addition to a comparison of all WMAs. ENSP/CWF will also develop similar metrics at the local level. WMAs will be evaluated at three levels: regionally, locally and a combination thereof. Deliverables by the end of 2015 will include a comprehensive interactive web-based report for each of the 121 WMAs and ArcGIS models available for download by other users to prioritize their properties. ENSP/CWF will also hold webinars to demonstrate applications of the ArcToolbox model and submit abstracts for presentations at the following regional GIS conferences: Northeast Arc Users Group Conference (NEARC), Environmental Systems Research Institute (ESRI) Mid-Atlantic User Conference and the Mid-Atlantic Chapter of Urban and Regional Information Systems Association (MACURISA) Conference.

**Wildlife Conservation Society** NALCC Funds Requested: **$99,965**

**Demonstration Project 2014- 12: Enhanced stewardship of priority habitats and species on private lands using NALCC science across four Northeastern states.**

The goal of the two-year project, led by the Wildlife Conservation Society, is to facilitate integration of regional science through local land-use decision-making to enhance stewardship of NALCC conservation priorities. In year 1, we will identify NALCC science data layers most relevant for state and regional conservation priorities and determine opportunities for integrating this information into state and regional planning. We will use this information, coupled with our own regional database of local land-use regulations for NY, VT, NH, and ME to identify and prioritize communities with the greatest potential to achieve conservation outcomes in locations of high conservation value on private lands through small science-based modifications to existing land-use planning tools. In year 2, we will demonstrate on-the-ground application of landscape conservation science by creating a custom NY gallery through the NALCC Conservation Planning Atlas on Databasin, and use it to develop town conservation profiles to advance the effectiveness of land-use planning in NY. Throughout the project, we will communicate our findings, resulting tools, and the process of science delivery for conservation outcomes to regional and state partners with a particular focus on partners of Staying Connected, Two Countries One Forest, and NALCC. As a result of this project, we will demonstrate how NALCC and partner science can be effectively translated and applied for the protection of SGCN and priority habitats. This demonstration project lays the groundwork for new or improved planning approaches for enhanced stewardship of public and private lands at multiple levels across the NALCC.

**Biodiversity Research Institute** NALCC funds requested: **$ 92,400**

**Demonstration Project 2014-13: A Geospatial Planning Tool for Wetlands Conservation in Gulf of Maine Watershed: North Atlantic Landscape Conservation Cooperative Science in Action.**

This 18-month project will advance wetlands conservation planning in the Gulf of Maine watershed by incorporating North Atlantic Landscape Conservation Cooperative (NALCC) science into local decision making. We will create a geospatial wetlands planning tool that seamlessly integrates relevant regional planning datasets generated by the NALCC with local information created by the states or NGOs. This database will serve as a one-stop-shop for conservation practitioners looking for information on status, distribution, abundance, condition, function, and biological value of wetlands in the Gulf of Maine. We will also create a series of customized queries, reports and maps to suit identified user needs and to support specific state and federal wetlands programs. The goal is to create a tool that will allow conservation practitioners to identify and prioritize wetlands conservation opportunities based on user specified criteria. We will promote the widespread use of the geospatial wetlands conservation tool via a series of five all day training workshops spread throughout the region. Up to 100 state, federal and NGO scientists and policy makers will receive training on landscape conservation science, data available through the NALCC and partners, and the proper use of the wetlands planning tool through hands-on demonstrations. Overall, we believe that this project will significantly increase the capacity of the conservation community to effectively identify and prioritize wetlands conservation opportunities in the Gulf of Maine watershed.